EXPRESS MAIL CERTIFICATE NO. EV 265 903 977 US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: ERIKSON, Kenneth Group Art Unit:

Serial No. Examiner:

Filed: HEREIN Atty. Dkt. No: D4601-3CIP

For: ACOUSTICAL IMAGING INTERFEROMETER FOR DETECTION OF BURIED

**UNDERWATER OBJECTS** 

To: Mail Stop IDS

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Fm: 24222

CERTIFICATE QF MAILING 37 CFR 1.8: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as FIRST CLASS MAIL addressed to: Mail Stop IDS, Commissioner of Patents, POBox 1450, Alexandria, VA 22813-1450

Date: \ \ [] Debra A. \Stengel

CERTIFICATE OF MAILING 37 CFR 1.10: I certify that this correspondence is being deposited on the below date with the U.S. Postal Service with sufficient postage as EXPRESS MAIL POST OFFICE TO ADDRESSEE addressed to: Mail Stop IDS, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date: 07/50/2003 [ Debra A. Stengel or [ ] Scott L. Asmus, Reg. No. 42,269

Dear Assistant Commissioner:

## INFORMATION DISCLOSURE STATEMENT

Applicants submit this statement and the attached 2 sheet(s) of form PTO-1449 and 0 specimens of prior art and other information in accordance to the duty of disclosure under 37 C.F.R. §§1.56,1.97, and 1.98, and requests consideration hereof. It is assumed the examiner is in possession of the art cited on the enclosed Form 1449 therefore, it is not included herewith. If this is not the case applicant would be happy to supply the examiner with copies of the prior art upon request.

Compliance with 37 C.F.R. §1.97: This Information Disclosure Statement is filed within three (3) months of the filing date of a National Application or before the mailing date of a first office action on the merits. No fee or certification is required.

<u>Information Cited:</u> The Applicants hereby make of record in the above-identified application, the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the reference. As all the references listed on attached Form PTO-1449 are in English, no commentary is required.

<u>Remarks</u>: A copy of each reference, together with a listing on Form PTO-1449(modified), is submitted herewith. Applicants respectfully request that:

- 1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
- 2. The enclosed form PTO-1449 (modified) be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application; and
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicants make no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined in 37 C.F.R. §102.

Notwithstanding any statement by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

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Scott J. Asmus, Reg. No. 42,269 Neil F. Maloney, Reg. No. 42,833 Andrew P. Cernota, Reg. No. 52,711 Attorneys/Agents for Applicant

Form PTO-1	449			Complete if Known		
				Application Number		
INF	ORMATION DI	SCLO	SURE	Filing Date	HEREIN	
STA	STATEMENT BY APPLICANT			First Named Inventor	ERIKSON, Kenneth	
				Group Art Unit		
				Examiner Name		
Sheet	1	of	2	Attorney Docket Number	D4601-3CIP	

Examiner	Cite	U.S. Patent Document	Name of Patentee or Applicant of	Date of Publication of	Pages, Columns, Lines, Where Relevant
Initials	No.	Number Kind	Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear
	*	6,159,149	Erikson et al	12-12-2000	
	*	6,325,757	Erikson et al	12-04-2001	
	*	5,732,706	White et al	03-31-1998	
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	*	4,922,467	Caulfield	05-01-1990	
	*	5,598,152	Scarzello et al	01-28-1997	
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	*	5,621,345	Lee et al	04-15-1997	

			FOREIG	N PATENT DOCU	MENTS		_
Examiner Initials	Cite No.	Foreign Patent E Office   Number Code	Pocument Kind	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	(Including Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Т
	*	SABATIER, James M. et al, "Laser-Doppler Based Acoustic-to-Seismic Detection of Buried Mines", SPIE Conference on Detection and Remediation Technologies for Mines and Minelike Targets IV, SPIE, Vol. 3710, pp. 215-222,1999.	
	*	SIMPSON, Harry J. et al, "Synthetic array measurements of acoustical waves propagating into a water-saturated sandy bottom for a smoothed and a roughened interface", J. Acoust. Soc. Am. 107 (5), Pt.1, May 2000, pp. 2329-2337	
	*	MALMBERG, Roy Dale, "A Study of the Feasibility of Using a Buried Sonar Transducer to Echo-Locate Objects Buried in Sediment", Naval PostGraduate School, Monterey, CA, Sept. 1987.	

<sup>\*</sup> In accordance with 37 CFR 1.98(d) a copy of this reference is not provided as it was previously submitted to, or cited by, the Office in prior Application No. 10/219169 filed 8/14/2002, which is being relied on for an earlier effective filing date under 35 U.S.C. § 120.

Examiner	Date	
Signature	Considered	

<sup>•</sup> EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

Form PTO-1	1449			Complete if Known		
				Application Number		
INF	ORMATION I	DISCLO	SURE	Filing Date	HEREIN	
ST	STATEMENT BY APPLICANT			First Named Inventor	ERIKSON, Kenneth	
				Group Art Unit		
				Examiner Name		
Sheet	2	of	2	Attorney Docket Number	D4601-3CIP	

	U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.	U.S. Patent Document Number Code	Kind	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
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	FOREIGN PATENT DOCUMENTS							
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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	(Including Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Т
	*	SSCHMIDT, Henrik et al, "Physics of 3-D scattering from rippled seabeds and buried targets in shallow water", J. Acoust. Soc. Am. 105 (3), 1999.	
	*	SMITH, Eric, "Measurement and localization of interface wave reflections from a buried target", J. Acoust. Soc. Am. 103 (5), Pt.1, May 1998, pp. 2333-2343	
	*	YOUNIS, Waheed A. et al, "Nondestructive imaging of shallow buried objects using acoustic computed tomography", J. Acoust. Soc. Am. 111 (5), Pt.1, May 2002, pp. 2117-2127	
	*	FRAZIER, Catherine H. et al, "Acoustic imaging of objects buried in soil", J. Acoust. Soc. Am. 108 (1), July 2000, pp. 147-156	
	*	POWERS, Jeffrey E. et al, "Ultrasound Phased Array Delay Lines Based on Quadrature Sampling Techniques", IEE Trans. On Sonics & Ultrasonics, Vol. SU-27(6), pp.287-294, Nov. 1980.	
	*	DONSKOY, Dimitri et al, "Nonlinear seismo-acoustic land mine detection and discrimination", J. Acoust. Soc. Am. 111 (6), June 2002, pp/ 2705-2714	

<sup>\*</sup> In accordance with 37 CFR 1.98(d) a copy of this reference is not provided as it was previously submitted to, or cited by, the Office in prior Application No. 10/219169 filed 8/14/2002, which is being relied on for an earlier effective filing date under 35 U.S.C. § 120.

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